(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 6 May 2005 (06.05.2005)

PCT

(10) International Publication Number WO 2005/040416 A1

(51) International Patent Classification7:

C12Q 1/68

(21) International Application Number:

PCT/EP2004/011124

(22) International Filing Date: 5 October 2004 (05.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/508,971

6 October 2003 (06.10.2003)

- (71) Applicant (for all designated States except AT, US): NO-VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).
- (71) Applicant (for AT only): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): IDE, Susan [US/US]; 72 Long Hill Road, Hollis, NH 03049 (US). LAVEDAN, Christian, Nicolas [US/US]; 22 Eldwick Court, Potomac, MD 20854 (US). McCULLOUGH, Karen [US/US]; 4607 Ripley Manor Terrace, Olney, MD 20832 (US).

- (74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: USE OF GENETIC POLYMORPHISMS THAT ASSOCIATE WITH EFFICACY OF TREATMENT OF INFLAMMA-TORY DISEASE

(57) Abstract: The MHC III region of chromosome 6p21.3 harbors a DNA sequence, most likely within the TNF or LTA gene, which influences response to pimecrolimus for the treatment of atopic dermatitis. Accordingly, genetic polymorphisms in the TNF and LTA genes are useful as biomarkers of the efficacy of pimecrolimus treatment of inflammatory disease. By contrast, response to tacrolimus appears to be influenced by other biological pathways.